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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,655	04/08/2004	Dean E. Thorson	CE12354R/10-264	8027

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EXAMINER

LY, NGHI H

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,655

Applicant(s)

THORSON ET AL.

Examiner

Nghi H. Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-16 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 7, 17 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/08/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1-4,6
3. Claims ~~4-6~~, 8, 11-14, 16, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urita (US 6,466,777) in view of Rocha (US 6,295,446) and further in view of Korowajczuk (US 5,765,107).

Regarding claim 1, Urita teaches a method in a base station of detecting cloned communication units (see Abstract and fig.1 clone terminal 111), the method comprising: receiving, responsive to a message, a first response message and a second response message (see Abstract and column 2, lines 20-34), determining

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whether a first identification field corresponding to the first response message is equivalent to a second identification field corresponding to the second response message (see Abstract and column 2, lines 31-34, Urita's "telephone number" reads on applicant's "identification field"), when the first identification field is equivalent to the second identification field (see Abstract and column 2, lines 31-34, Urita's "telephone number" reads on applicant's "identification field").

Urita does not specifically disclose assessing whether one of a first message content and a first message property corresponding to the first response message is not correlated, respectively, with one of a second message content and a second message property corresponding to the second response message, and when the one of the first message content and the first message property is not correlated, respectively, with the one of the second message content and the second message property, deciding that one of the first response message and the second response message corresponds to a cloned communication unit.

Rocha teaches assessing whether one of a first message content (see Abstract and cloned mobile station 61) and a first message property corresponding to the first response message is not correlated (column 2, lines 27-59, see "mismatch"), respectively, with one of a second message content and a second message property corresponding to the second response message (also see column 2, lines 27-59), and when the one of the first message content and the first message property is not correlated (column 2, lines 27-59, see "mismatch"), respectively, with the one of the second message content and the second message property, deciding that one of the

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first response message and the second response message corresponds to a cloned communication unit (column 2, lines 27-59, see "indicates fraudulent cloning of a MS").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Rocha into the system of Urita in order to provide a method an apparatus of defeating fraudulent cellular telephone operations which make use of stolen PINs (see Rocha, column 2, lines 3-6).

The combination of Urita and Rocha does not specifically disclose a page message.

Korowajczuk teaches a page message (fig.1, see "cellular cloned phone 18" and Abstract, column 2, lines 35-46, see "paging signal").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Korowajczuk into the system of Urita and Rocha in order to detect and identify a fraudulent cellular phone without any additional equipment, database or intensive computations (see Korowajczuk, column 2, lines 29-32).

Regarding claim 2, the combination of Urita and Rocha teaches claim 1. The combination of Urita and Rocha does not specifically disclose the assessing whether the first message content is not correlated with the second message content further comprises assessing whether first environmental information is not correlated with second environmental information, the first and second environmental information corresponding to an environment of a first and second communication unit that is, respectively the source of the first and the second response message.

Korowajczuk teaches the assessing whether the first message content is not correlated with the second message content further comprises assessing whether first environmental information is not correlated with second environmental information (see column 3, lines 57-65), the first and second environmental information corresponding to an environment of a first and second communication unit that is, respectively the source of the first and the second response message (column 6, lines 23-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Korowajczuk into the system of Urita and Rocha in order to detect and identify a fraudulent cellular phone without any additional equipment, database or intensive computations (see Korowajczuk, column 2, lines 29-32).

Regarding claim 3, the combination of Urita and Rocha teaches claim 1. The combination of Urita and Rocha does not specifically disclose the first and the second environmental information corresponds to one of a radio environment and a location for, respectively, the first and the second communication unit.

Korowajczuk teaches the first and the second environmental information corresponds to one of a radio environment and a location for, respectively, the first and the second communication unit (Abstract, see "location" and column 3, lines 57-65 and column 6, lines 23-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Korowajczuk into the system of Urita and Rocha in order to detect and identify a fraudulent cellular phone without any

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additional equipment, database or intensive computations (see Korowajczuk, column 2, lines 29-32).

Regarding claim 4, the combination of Urita and Rocha teaches claim 1. The combination of Urita and Rocha does not specifically disclose the radio environment corresponds to one of signals available and strength of available signals for, respectively, the first and the second communication unit.

Korowajczuk teaches the radio environment corresponds to one of signals available and strength of available signals for, respectively, the first and the second communication unit (see column 3, lines 57-65 and column 6, lines 23-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Korowajczuk into the system of Urita and Rocha in order to detect and identify a fraudulent cellular phone without any additional equipment, database or intensive computations (see Korowajczuk, column 2, lines 29-32).

Regarding claim 6, Urita as modified by Korowajczuk teaches claim 1. Urita as modified by Korowajczuk does not specifically disclose the assessing whether the first message property is not correlated with the second message property further comprises assessing whether a first arrival time of the first response message is not correlated with a second arrival time of the second response message.

Rocha teaches the assessing whether the first message property is not correlated with the second message property further comprises assessing whether a first arrival time of the first response message is not correlated with a second arrival

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time of the second response message (column 2, lines 27-59, see "indicates fraudulent cloning of a MS").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Rocha into the system of Urita and Korowajczuk in order to provide a method an apparatus of defeating fraudulent cellular telephone operations which make use of stolen PINs (see Rocha, column 2, lines 3-6).

Regarding claim 8, the combination of Urita and Rocha teaches claim 1. The combination of Urita and Rocha does not specifically disclose sending the page message, the page message requiring message content in any response message.

Korowajczuk teaches sending the page message, the page message requiring message content in any response message (fig.1, see "cellular cloned phone 18" and Abstract, column 2, lines 35-46, see "paging signal").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Korowajczuk into the system of Urita and Rocha in order to detect and identify a fraudulent cellular phone without any additional equipment, database or intensive computations (see Korowajczuk, column 2, lines 29-32).

Regarding claim 11, claim 11 is rejected with similar reason as set forth in claim 1 above.

Regarding claim 12, claim 12 is rejected with similar reason as set forth in claim 2 above.

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Regarding claim 13, claim 13 is rejected with similar reason as set forth in claim 3 above.

Regarding claim 14, claim 14 is rejected with similar reason as set forth in claim 4 above.

Regarding claim 16, claim 16 is rejected with similar reason as set forth in claim 6 above.

Regarding claim 20, claim 20 is rejected with similar reason as set forth in claim 1 above.

Regarding claim 21, Urita as modified by Korowajczuk teaches claim 1. Urita as modified by Korowajczuk does not specifically disclose the first identification field comprises one of an electronic serial number, mobile identification number, and message sequence number and the first environmental report comprises information corresponding to other radio signals that are available.

Rocha teaches the first identification field comprises one of an electronic serial number, mobile identification number, and message sequence number and the first environmental report comprises information corresponding to other radio signals that are available (see column 5, lines 9-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Rocha into the system of Urita and Korowajczuk in order to provide a method an apparatus of defeating fraudulent cellular telephone operations which make use of stolen PINs (see Rocha, column 2, lines 3-6).

4. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urita (US 6,466,777) in view of Rocha (US 6,295,446) and further in view of Korowajczuk (US 5,765,107) and McKenna et al (US 6,594,498).

Regarding claim 5, the combination of Urita, Rocha and Korowajczuk teaches claim 3. The combination of Urita, Rocha and Korowajczuk does not specifically disclose the radio environment further comprises a radio environment report according to a code division multiple access system.

McKenna teaches the radio environment further comprises a radio environment report according to a code division multiple access system (see column 17, lines 60-63 and column 18, lines 50-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of McKenna into the system of Urita, Rocha and Korowajczuk in order to provide subscribers with access to a plurality of broadcast and narrowcast based services (see McKenna, column 1, lines 7-10).

Regarding claim 15, claim 15 is rejected with similar reason as set forth in claim 5 above.

5. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urita (US 6,466,777) in view of Rocha (US 6,295,446) and further in view of Korowajczuk (US 5,765,107) and Pirila (US 6,377,791).

Regarding claim 9, the combination of Urita, Rocha and Korowajczuk teaches claim 3. The combination of Urita, Rocha and Korowajczuk does not specifically disclose responsive to deciding that one of the first response message and the second response message corresponds to the cloned communication unit, the method further comprises denying service to any communication unit corresponding to the first identification field.

Pirila teaches responsive to deciding that one of the first response message and the second response message corresponds to the cloned communication unit, the method further comprises denying service to any communication unit corresponding to the first identification field (see column 1, lines 32-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Pirila into the system of Urita, Rocha and Korowajczuk in order to prevent unauthorized access to the service.

Regarding claim 18, claim 18 is rejected with similar reason as set forth in claim 9 above.

6. Claims 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urita (US 6,466,777) in view of Rocha (US 6,295,446) and Korowajczuk (US 5,765,107) and further in view of Pirila (US 6,377,791) and Sladek et al (US 6,718,178).

Regarding claim 10, the combination of Urita, Rocha, Korowajczuk and Pirila teaches the denying service (see Pirila, column 1, lines 32-38). The combination of Urita, Rocha, Korowajczuk and Pirila does not specifically disclose the denying service

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further comprises sending a text message to the any communication unit corresponding to the first identification field.

Sladek teaches the denying service further comprises sending a text message to the any communication unit corresponding to the first identification field (see column 7, lines 33-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Sladek into the system of Urita, Rocha, Korowajczuk and Pirila in order to notify the unauthorized user in advance.

Regarding claim 19, claim 19 is rejected with similar reason as set forth in claim 10 above.

Allowable Subject Matter

7. Claims 7, 17 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 7 and 17, the combination of Urita, Rocha and Korowajczuk teaches the first and the second arrival time (see Rocha, fig.2A and fig.2B, see "Date" "Time" and "Duration").

The combination of Urita, Rocha and Korowajczuk fails to teach the first and the second arrival time are compared to provide a relative arrival time and when the relative arrival time satisfies a threshold determining that the first message property is not correlated with the second message property.

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Regarding claim 22, the combination of Urita, Rocha and Korowajczuk teaches the first and the second arrival time (see Rocha, fig.2A and fig.2B, see "Date" "Time" and "Duration").

The combination of Urita, Rocha and Korowajczuk fails to teach the processor, prior to the deciding, is further operable to assess whether a relative arrival time corresponding to the first response message and the second response message satisfies a threshold.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Amin (US 5,953,652) teaches detection of fraudulently registered mobile phones.
- b. Gerth (US 6,370,373) teaches system and method for detecting cloning fraud in cellular/pcs communications.
- c. Schorman (US 5,467,382) teaches method and apparatus for clone detection in a communication system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone

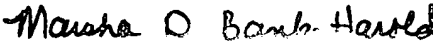
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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly


05/12/05


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